UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
3692	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
	09/761,670	EDER, JEFFREY SCOTT
Office Action Summary	Examiner	Art Unit	
	Siegfried E. Chencinski	3692	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 September 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *43-46, 48-52 & 54-86* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *43-46, 48-52 & 54-86* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>9/10/06</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement filed September 10, 2006 fails to comply
with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609, particularly 1.98 (a)(3)(i)
because a concise explanation of the relevance of the items submitted, including the
identification of the relevant pages and lines of each IDS document, has not been
submitted. The disclosed materials have been placed in the application file, but the
information referred to therein has not been considered as to the merits. Applicant is
advised that the date of any re-submission of any item of information contained in this
information disclosure statement or the submission of any missing element(s) will be the
date of submission for purposes of determining compliance with the requirements based
on the time of filing the statement, including all certification requirements for statements
under 37 CFR 1.97(e). See MPEP § 609.05(a).

Declaration Submitted Under Rule 132

2.   The declaration by Mr. Rick Rauenzahn submitted on September 8, 2006 under
Rule 132 has been considered but has been determined to lack relevance because the
qualifications submitted by Mr. Rauenzahn do not qualify him as an expert according in
the art of financial modeling as required by Rule 132 since Mr. Rauenzahn does not
claim to have expertise in any aspect of business and/or financial modeling and
because Mr. Rauenzahn's declaration does not make any statements regarding claimed
subject matter and/or claimed limitations. Mr. Rauenzahn has claims degrees in
chemical engineering at the BS, Masters and PhD levels. Mr. Rauenzahn specifically
claims to have experience and expertise in the disciplines of fluid dynamics, turbulence
modeling, numerical methods for partial differential equations, radiation hydrodynamics,
and strength of materials as an employee of Los Alamos National Laboratory and
Molten Metal Technologies for 23 years.

Specification

3.   The amendments to the first paragraph of the specification filed October 5, 2005

and December 5, 2005 have not been entered because they not conform to 37 CFR

1.125(b) and (c) because the later of the two time deadlines expired several years ago.

At this time the only option available to an Applicant is to file a petition according to

MPEP guidelines to have any of the proposed prior applications considered for a benefit

claim to the instant application (see 37 CFR 1.78(A)(2) AND (a)(5)). (MPEP 1893.03(c)).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

4.   **Claims 43-46, 48-52 and 54-86 are rejected under 35 U.S.C. 101** because the

claimed invention is not supported by either a specific and substantial asserted utility or

a well established utility.

For a claim to be statutory under 35 USC 101 the following two conditions must be met:

1) In the claim, the practical application of an algorithm or idea results in a useful,

concrete, tangible result.

In this case, the independent claims 43, 55, 67 and 80 do not produce a useful,

concrete, tangible result because the claimed method is merely a conceptual

framework. It appears that the invention is about the use of modeling. However, it is

unclear exactly what the modeling produces. Therefore the claimed invention lacks

concreteness, thus the results cannot be concrete. The specification does not clear up

this problem because there is no example in the specification to demonstrate how it

takes concrete inputs and produces concrete, verifiable and repeatable outputs. The

descriptions, guidelines and examples have the same lack of concreteness. Two

iterations are unlikely to produce the dame results, especially of two different

practitioners were to do the iterations. The claims are written at a conceptual level of

generalities which have nothing to do with producing a hard product. No concrete input

is defined and no concrete output is defined. The claim elements involve obtaining a plurality of data, evolve a plurality of network models, use "input nodes", "hidden nodes" and "output nodes" of an unspecified nature, where "and each output node represents an aspect of financial performance", and use a plurality of relationships between nodes "where each network model" ... "supports the development of a controlling forecast for use in optimizing purchasing". There is nothing useful, concrete and tangible in these limitations. The limitations are made up of the evolving of a plurality of network models with input nodes, hidden nodes and output nodes, and relationships with degrees of influence and elements of value. All of these together are essentially vague and cannot even be considered an algorithm, which, in any case, as presented, fails to not even produce a useful, concrete, tangible quantitative result. In addition, court interpretations of the statute require that output in specific applications be claimed. Having such applications in the specification is insufficient. The invention must be in the claims, except for non-critical elements so recognized by the ordinary practitioner which can be in the specification for the purpose of illustrating the details. Further, even the most detailed disclosure in the specification fails to present a method and system where the results can be replicated by others because qualitative judgments are involved in the method such that even the same practitioner seems unlikely to be able to replicate a result for the same case in multiple iterations of operating the model.

5.   **Claim 54** is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

6.   **Dependent claims 44-46, 48-52,** do not meet the test for useful, concrete and tangible results on the basis of their dependencies on independent claims 43, 55, 67 and 80. Further, these dependent claims themselves fail to meet the useful, concrete and tangible requirements of 35 USC 101 test because their limitations are written in the same non-specific manner.

Therefore, an ordinary practitioner of the art would be unable to make productive use of the inventions claimed in claims 43-46, 48-52 and 54-86 without undue experimentation.

7.   Claims 43-46, 48-52 and 54-86 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8.   Claims 43-46, 48-52 and 54-86 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. For an application in this case, see the rejection under 35 USC 101.

9.   Claim 54 is rejected under 35 U.S.C. 112, first paragraph, because, per *In re Hyatt*, 708 F.2d 712, 218 USPQ 195 (Fed. Cir. 1983), a single means claim does not comply with the enablement requirement of **35 U.S.C. 112**, first paragraph.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10.   Claims 43-46, 48-52 and 54-86 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are the steps which would lead an ordinary practitioner of the art to

successfully apply the invention to produce a concrete, reproducible quantitative

valuation result of a firm.

For example,

- Independent claim 43 claims a system for the obtaining of data and the evolving

    of a plurality of network models, plus a description of what the network models

    are comprised of.

- Independent claim 54 claims a one step method for aggregating firm related

    data.

- Independent claim 67 claims a computer readable medium containing stored

    instruction, which when executed, cause a processor to perform two steps, the

    integrating of business related data for a firm, and using at least a portion of the

    data to generate a plurality of models to connect one or more elements of value

    of said firm to one or more aspects of financial performance of a firm.

- Independent claim 80 claims an enterprise data integration method for accessing

    enterprise transaction data, converting said data to a common schema, and·

    storing said converted data in a database for use in processing.

None of these inventions contain all the essential steps which would lead an ordinary

practitioner of the art to successfully apply the invention to produce a concrete,

reproducible quantitative valuation result of a firm.

11.   **Claims 52, 65 and 78** recite the limitation "business event network models".

There is insufficient antecedent basis for this limitation in these claims because

business event network models are not found in the disclosure.

12.   **Claim 85** recites the limitations "business event network models". There is

insufficient antecedent basis for this limitation in these claims because business event

network models are not found in the disclosure.

13.   **Claims 43, 54, 67 and 80** are rejected under 35 U.S.C. 112, second paragraph,

because they would require undue experimentation for the ordinary practitioner to put to

productive, reliable use, tangible and concrete use based on the guidelines for undue

experimentation in MPEP 2164.01(a) because they would be beyond the level of one of

ordinary skill to successfully use to produce concrete, reliable results which could be replicated, because the art claimed in the disclosure has poor predictability, the invention would require an undue amount of direction by the inventor, because working samples of a concrete input and concrete output are lacking, and the quantity of experimentation needed to make or use the invention based on the content of the disclosure is excessive because it is indeterminable. This meets the test laid out in *In Re Wands*: " A conclusion of lack of enablement means that, based on the evidence regarding each of the above factors, the specification, at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation. *In re Wright*, 999 F.2d 1557,1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)."

14.   **Claims 52, 65, 78 and 85 are rejected under 35 U.S.C. 112, second paragraph,** as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The expressions "intelligent", "direct effects" and "indirect effects" in claim 85 appear have been added by amendment after the first Office Action. The expression "business event network models" has been added by amendment to claims 52, 65 and 78 in the most recent response. None of these terms appear in the disclosure. Therefore there is insufficient antecedent basis for these limitations in these claims.

15.   Claims 43, 54, 67 each recite the limitation "where each network model from a plurality of network models supports the development of a controlling forecast for use in optimizing purchasing". There is insufficient antecedent basis for this limitation in the claim. The specification contains no specific links between optimization and purchasing. Variations of the root of optimizing are only found in four instances in the specification. They are "optimizes predictive models" ([0055]), "optimization of the predictive models" ([0034],"network optimization"([0135]) and "optimizing the network" ([0136]). No mention of purchasing is found in those paragraphs.

16.   **Claim 54** provides for the use of network models, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process

applicant is intending to encompass. A claim is indefinite where it merely recites a use

without any active, positive steps delimiting how this use is actually practiced. It lacks

an active or positive step of how to use the model in the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17.   **Claims 43-46, 48, 49, 51, 54-62 and 64-85 are rejected** under 35 U.S.C. 103(a)

as being unpatentable over Sandretto (US Patent 5,812,988).

Re. claims 43, 54 & 67, Sandretto discloses a firm analysis method, system, framework

and medium, comprising:

- aggregating firm related data from a plurality of systems in accordance with a

  common data dictionary using at least a portion of the data to generate network

  models which connect one or more current elements of value of said firm to

  one or more aspects of financial performance of said firm (Col. 8, ll. 52-59),

  said network models being further comprised of:

- a computer with a processor, having circuitry to execute instructions; a storage

  device available to said processor with sequences of instructions stored therein,

  which when executed cause the processor to: obtain a plurality of data related to a

  value of a business enterprise in a format suitable for processing (Col. 15, ll. 23-67).

- one or more input nodes, hidden nodes and output nodes where each input node

  represents an element of value and each output node represents an aspect of

  financial performance (Sandretto, Col. 9, ll. 40-41. The input and output nodes are

  implicit or obvious), and

- a plurality of relationships where each relationship is a function of an impact *of* each element on other elements of value or an aspect of financial performance (Col. 8, l. 52 – Col. 9, l. 20);

Sandretto does not explicitly disclose

- where each network model from a plurality of network models supports the development of a controlling forecast for use in optimizing purchasing.

However, Sandretto discloses optimizing in the management of financial assets (Col. 8, ll. 46-47). Sandretto also uses forecasting and forecasts methods of economic and financial variables in the process of maximizing financial returns (Col. 8, ll. 45-46). Further, Sandretto discloses the use of purchasing as a tool for improving the financial performance of assets employed in a portfolio of managed assets (Col. 2, ll. 37, 41; Col. 16, ll. 21-22, 25; Col. 18, ll. 54, 59). Therefore, an ordinary practitioner of the art at the time of Applicant's invention would have seen it as obvious to have used Sandretto's disclosures for the purpose of employing a firm analysis method, system and computer readable medium, motivated by a desire to offer an improved method for estimating asset values (Col. 2, ll. 2-65).

Re. Claims 44, 55 & 68, Sandretto discloses one or more aspects of financial performance based on market value (Col. 9, ll. 11, 13, 30).

Re. Claims 45, 56 & 69, Sandretto discloses network models which comprise: a summary of value drivers by element of value applied to each of said input nodes, where said summaries summarize the impact of each *of* said elements of value on one or more aspects of financial performance, the other elements of value and combinations thereof (Col. 9, 14-16).

Re. Claims 46, 57 & 70, Sandretto discloses where one or more weights from a best fit model are used to identify a net impact of each element *of* value on a component of value selected from the group consisting of revenue, expense, capital change and combinations thereof (Col. 9, ll. 16-20, 56-57).

Re. Claims 48, 60 & 73, Sandretto discloses where a plurality of relationships are quantified for a specified point in time within a sequential series of points in time (Col. 10, ll. 1-7).

Re. Claims 49, 61 & 74, Sandretto discloses where a relative contribution to one or more

components of value is combined with a present value of said components of value to determine a current operation value of each element of value (Col. 9, ll. 7-9).

Re. Claims 50, 62 & 75, Sandretto discloses the element of value of employees (Col. 16, ll. 27-30).

Re. Claims 51, 63 & 74, Sandretto discloses training one or more best fit network models using one or more genetic algorithms (Col. 9, ll. 11, 13, 30).

Re. Claims 58 & 71, Sandretto discloses comprising training one or more best fit network models that identify a relative impact of each element of value on each *of* the components of value where one or more weights from the best fit models are used to identify a relative contribution of each element of value to each component of value net of any impact on the other elements of value (Col. 11, ll. 43-56).

Re. Claims 64 & 77, Sandretto discloses a firm as a company (Col. 2, ll. 22-26).

Re. Claims 52, 65 & 78, Sandretto discloses the use of network modeling in the valuation of a business enterprise (see above the rejection of claims 43, 54 and 67). Sandretto does not explicitly disclose "a plurality of business event network models". However, Sandretto uses modeling to forecast the performance of a business enterprise. Such forecasting involves assumptions about the future. In this context, an ordinary practitioner of the art at the time of the invention would have understood that a business event is any occurrence, whether actual or hypothetical, which an analyst chooses to include as a variable in a forecasting scenario. Therefore, it would have been obvious to an ordinary practioner of the art at the time of the invention to have derived from Sandretto the obviousness of modeling business events through network models, thus employing business event network modeling.

Re. Claim 80, Sandretto discloses a firm analysis method, framework and medium (see the above rejections of claims 43, 54 & 67). In so doing, Sandretto also discloses an enterprise data integration method, comprising accessing a plurality of enterprise transaction data via an interface coupled to a plurality of data sources, and converting said transaction data to a common schema using an application software segment, and storing said converted data in a database for use in processing, where a plurality of sources further comprise databases for systems selected from the group consisting of a basic

financial system, a human resource system, an advanced financial system, a sales system,
an operations system, an accounts receivable system, an accounts payable system, a capital
asset system, an inventory system, an invoicing system, a payroll system, a purchasing
system and combinations thereof (Col. 9, ll. 40-41; Col. 10, ll. 1-7; Col. 14, l. 30 – Col. 15, l.
19; Fig's 1-14). Sandretto discloses in these and other sections of the patent how he
integrates data from a multiplicity of databases and models to generate an analysis of a firm.
The schematics show how the pieces are fit together in integrating the data and perform the
analysis.

Sandretto does not explicitly disclose database management systems. However,
database management systems are well known in the art of employing computer
systems for data processing for any application, including financial and business
analysis, optimization, forecasting, planning, among many other uses involving data.
Therefore, an ordinary practitioner of the art at the time of Applicant's invention would have
seen it as obvious to have used Sandretto's disclosures for the purpose of employing a firm
analysis method, system and computer readable medium, motivated by a desire to offer an
improved method for estimating asset values (Col. 2, ll. 2-65).

Re. Claims 81-84, Sandretto discloses:

    Re. Claim 81, an enterprise data integration method. Sandretto does not
explicitly disclose a plurality of relational databases where said databases use different
data formats. However, relational databases using different data formats were well
known within the art at the time of Applicant's invention. They are implicitly in use in
Sandretto's disclosure.

    Re. Claim 82, a network connection (Col. 15, ll. 59-63; Fig's 1A).

    Re. Claim 83, an enterprise data integration method. Sandretto does not explicitly
disclose a network schema with a common data dictionary where said common data
dictionary defines common attributes selected from the group consisting of elements of value,
components of value, currencies, units of measure, time periods, dates and combinations
thereof. However, a network schema and a data dictionary were well known and necessary
data processing system tools used for projects such as enterprise data integration. As such,
they are implicitly in used in Sandretto's disclosure.

Re. Claim 84, the conversion and storage of data before processing begins. Conversion and storage of data before processing begins are implicit to Sandretta's disclosure since they are necessary steps in operating Sandretta's system.

Re. Claims 80-84, it would have been obvious to an ordinary practitioner of the art at the time of Applicant's invention to have used Sandretto's disclosure with the practitioner's own knowledge to make obvious adjustments in order to produce an enterprise data integration method, motivated by the desire to offer a valuation model which fully utilizes current information that affects asset risk and which can be used for virtually any asset and potential asset (Sandretto, Col. 9, ll. 56-67).

Re. Claim 85, Sandretta discloses an intelligent method for analyzing commerce data using a computer, comprising: identifying a set of data required for analyzing a commercial enterprise, preparing the identified set of data for use in analysis, analyzing at least a portion of said data in an automated fashion as required to identify one or more statistics selected from the group consisting of pattern, trend, ratio, average, elapsed time period, percentage, variance, monthly total and combinations thereof, and using at least a portion of said statistics and data to develop a model of enterprise current operation financial performance using automated learning, where the model mathematically expresses the dynamic characteristics and behavior of each element of value as including direct effects and indirect effects from each element of value.

(Sandretta's steps 1 through ten, and then additional alternative steps (1) through (6) include these steps, followed by multiple iterations. These are the characteristics of an automated learning process (Col. 10, ll. 1-Col. 12, l. 55). Sandretto's general methodology and objectives are outlined in Col. 8, l. 52 – Col. 9, l. 67. Sandretto discloses generating a predictive model that mathematically expresses dynamic characteristics and behavior of the elements of value using said descriptions is described in Col. 8, l. 52 – Col. 9, l. 20. Sandretto's dynamic modeling method quantifies the risk profile of each element value and demonstrates the direct effects of an element of value through the identification of each element's risk measures, both input risk (Col. 9, l. 3) and output risk (Col. 9, l. 14). An accounting meaning of current operations is operations currently in progress and means within one year regarding certain types of assets and

liabilities. The identifying of an asset's operating (direct), financing and accounting (indirect) characteristics encompasses direct and indirect effects. It would have been obvious to an ordinary practitioner of the art at the time of Applicant's invention to have used Sandretto's disclosure combined with the practitioner's own knowledge to make obvious adjustments in order to produce an intelligent method for analyzing commerce data using a computer, motivated by the desire to offer a valuation model which fully utilizes current information that affects asset risk and which can be used for virtually any asset and potential asset (Sandretto, Col. 9, ll. 56-67).

18.   **Claims 63 and 76 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Sandretto in view of Jost et al. (US Patent 5,361,201, hereafter Jost).

Re. Claims 63 & 76, Sandretto does not explicitly disclose a method where network models further comprise neural network models. However, Jost discloses neural network models (Abstract- l. 3; Col. 1, l. 7-10; Col. 2, ll. 30-35). It would have been obvious to an ordinary practitioner of the art at the time of Applicant's invention to have combined the art of Sandretto with the art of Jost in order to provide a valuation method and system which makes use of neural network modeling, motivated by a desire to provide accurate estimates of financial value (Jost, Col. 2, ll. 17-20).

19.   **Claim 86 is rejected** under 35 U.S.C. 103(a) as being disclosed by Sandretto as applied to claims 43 and 85 above, and further in view of Barr et al. (US Patent 5,761,442, hereafter Barr).

Re. Claim 86, Sandretto does not explicitly disclose a method which comprises using a plurality of genetic algorithms to automatically learn from the data by using processing steps selected from the group consisting of fitness measure re-scaling, random mutation, recalibrating target fitness levels, selective crossover, selective carry-forward and combinations thereof. However, Barr discloses the use of commercial optimizers such as the "Solver" which is part of the Excel spreadsheet program from Microsoft corporation, the "Evolver", a genetic algorithm based program from Axcellis Inc. ..., or software packages which are available from the Harvard Business School ...". Barr discloses that "such

commercial portfolio optimizers can be integrated as part of data processing system 310 (Col. 13, II. 26-41). The Barr patent is titled "Predictive neural network means and method for selecting a portfolio of securities wherein each network has been trained using data relating to a corresponding security". Barr further discloses that "other commercial products or custom software can be used and developed by persons skilled in the art on the basis of the disclosure". It would have been obvious for the practitioner to select from these available genetic algorithms techniques such as fitness measure re-scaling, random mutation, recalibrating target fitness levels, selective crossover, selective carry-forward and combinations thereof to automatically learn from the data. Consequently, it would have been obvious to an ordinary practitioner of the art at the time of Applicant's invention to have combined Sandretto's disclosure with the disclosure of Barr, combined with the practitioner's own knowledge, to make use of a plurality of genetic algorithms to automatically learn from the data, motivated by the desire to offer a valuation model which utilizes neural nets, genetic algorithms and optimization techniques to effectively combine technical and fundamental information in a computerized framework (Sandretto, Col. 9, II. 56-67).

20.   **Claim 51 is rejected** under 35 U.S.C. 103(a) as being disclosed by Sandretto as applied to claims 43 and 85 above, and further in view of Barr.

Re. Claim 51, Sandretto does not explicitly disclose disclose a plurality of network models which comprise a plurality of neural network models that are trained using genetic algorithms. However, Sandretto discloses the use of network models (see the rejection of claims 43, 54 and 67, above). Jost discloses the use of neural network models (see the rejection of claims 63 and 76, above). Finally, Barr discloses the use of genetic algorithms to automatically learn from data (see the rejection of claim 86. It would have been obvious to an ordinary practitioner of the art to have combined the disclosures of Sandretto, Jost and Barr to employ a plurality of network models which comprise a plurality of neural network models that are trained using genetic algorithms, motivated by the desire to offer a valuation model which utilizes neural nets, genetic algorithms and optimization techniques to effectively combine technical and fundamental information in a computerized framework (Sandretto, Col. 9, II. 56-67).

Response to Arguments

21.   Applicant's arguments filed on September 8, 2006 with respect to claims 43-46, 48-52, and 54-86 in regard to the rejections under 35 USC 103(a) have been considered but are moot in view of the new ground(s) of rejection necessitated by Applicant's amendments of claims.

Applicant's arguments filed on September 8, 2006 with respect to claims 43-46, 48-52, and 54-86 in regard to the rejections under 35 USC 112 have been fully considered but they are not persuasive.

ARGUMENT A: Traversal of the rejections of claims 43-86 under 35 USC 101 (p. 20, l. 1 – p. 21, l. 24).
RESPONSE: The examiner has expanded the text of the 101 rejections above in response to Applicant's traversal of the rejections under 35 USC 101.

ARGUMENT B: Traversal of 35 CFR 112-1st and 2nd paragraph rejections (p. 22, l. 1 – p. 25, l. 2).
RESPONSE: The examiner has expanded the text of the 101 rejections above in response to Applicant's traversal of the rejections under 35 USC 101.

ARGUMENT C: Request for Affidavits under 37 CFR 1.104 (p. 27, l. 1 – p. 28, end) regarding the well known use of relational databases, a network schema and a data dictionary.
RESPONSE: Evidence for the well known nature of relational databases, a network schema and a data dictionary to the ordinary practitioner of the art at the time of Applicant's invention are contained in the Microsoft Computer Dictionary for relational databases and a data dictionary. Bunte et al. disclose the use of network schema in US Patent 5,873,070 (Col. 3, ll. 52, 58; Col. 6, ll. 33, 65).

Conclusion

22.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Siegfried Chencinski whose telephone number is (571)272-6792. The Examiner can normally be reached Monday through Friday, 9am to 6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Richard E. Chilcot, can be reached on (571) 272-6777.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington D.C. 20231
or *(571)273-8300*   [Official communications; including After Final communications labeled "Box AF"]
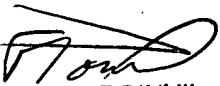
3-6792   [Informal/Draft communications, labeled "PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to the address found on the above

USPTO web site in Alexandria, VA.

SEC

November 27, 2006

FRANTZY POINVIL
PRIMARY EXAMINER

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